# REMOVAL PROGRAM PRELIMINARY ASSESSMENT/ SITE INVESTIGATION REPORT FOR THE CHARLOTTE SMITH PROPERTY SITE MEDDYBEMPS, WASHINGTON COUNTY, MAINE 28 AND 29 NOVEMBER 2006

# Prepared For:

U.S. Environmental Protection Agency
Region I
Emergency Planning and Response Branch
1 Congress Street, Suite 1100
Boston, MA 02114-2023

CONTRACT NO. EP-W-05-042

TDD NO. 06-11-0001

**TASK NO. 0258** 

DC NO. R-4664

Submitted By:

Weston Solutions, Inc.
Region I
Superfund Technical Assessment and Response Team III (START)
3 Riverside Drive
Andover, MA 01810

May 2007

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I. Preliminary Assessment/Site Investigation Forms



# EPA REGION I REMOVAL PRELIMINARY ASSESSMENT

| .0  | Site Name and Location   |
|---|--|
| Name: Charlotte Smith Property Town: Meddybemps   | Location: Route 191 County: Washington State: Maine (ME)   |
|   | N-NPL ()RCRA ()TSCA<br>BANDONED ()OTHER  |
| (X)Attached USGS Map of Locati  | ion ()Site I.D. No.:   |
| Latitude: 45° 2' 18.8" North  | <b>Longitude:</b> 67° 21' 66.3" West   |
|   | Referral   |
| ()Citizen ()City/Town<br>()RCRA ()Other:<br>Name of referring party: Kathy He<br>(MEDEP)<br>Telephone: (207) 287-2651<br>Address: 27 State House Station, A | owatt, Maine Department of Environmental Protection  |
|   | Contacts Identified  |
| 1)<br>2)<br>3)  | Telephone:( ) Telephone:( ) Telephone:( )  |
| 2   | Source of Information  |
| () Report:  | MEDEP Representative Howatt and the property owner.  Air Sampling, conducted by Jacques Whitford Co. Inc., Augus |

# REMOVAL PRELIMINARY ASSESSMENT

Potential Responsible Parties

Owner: Dawn Smith

Telephone:()

Address: Route 214

Meddybemps, ME 04657

Site Access

Authorizing Person: Dawn Smith

Date: 28 November 2006 (X)Obtained

()Verbal

Telephone: ( )

()Not Obtained

(X)Written

#### Historical Preservation

() Site is Historically Significant or Eligible for Historic Preservation

# **Contacts Identified**

1) State Historical Preservation Officer (SHPO)

Name: Earle G. Shettleworth, Jr. Telephone: (207) 287-2132

2) Tribal Historical Preservation Officer (THPO)

Name:

Telephone:()

Comments: This site is not considered historically significant or eligible for historic preservation.

# Physical Site Characterization

Background Information: The Charlotte Smith Property site (the site) consists of a large, flat parcel that is bounded by Main Street (Route 191) to the south, by the Dennys River to the north and west, and by Lombard Road to the east. The geographic coordinates of the site are 45° 02' 18.8" north latitude and 67 ° 21' 66.3" west longitude, as measured from the center of the site. The site is located in a rural residential area. The Eastern Surplus Superfund site lies northwest of the site to the north of the Dennys River.

# Description of Substances Possibly Present, Known or Alleged:

During May 2006, MEDEP performed a removal action, which consisted of the removal of more than 200 5-gallon containers of industrial solvents, including perchloroethylene (PCE), from the basement of the on-site residence. The MEDEP removal included the collection of concrete samples from the basement, and soil and soil gas samples from below the concrete slab. MEDEP analytical and air monitoring results indicated that there were elevated levels of volatile organic compounds (VOCs) in the air, soil, and soil gas in the basement of the residence.

#### REMOVAL PRELIMINARY ASSESSMENT

#### **Existing Analytical Data**

# () Real-Time Monitoring Data:

(X) Sampling Data: Air sampling results for samples collected for MEDEP by Jacques Whitford Co. Inc. on 23 August 2006.

#### **Potential Threat**

Description of potential hazards to environment and/or population-identify any of the criteria for a Removal Action (from NCP) that may be met by the site under 40 CFR 300.415 [b] [2].

- i. Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances, pollutants or contaminants.
- ii. Actual or potential contamination of drinking water supplies or sensitive ecosystems.
- iii. Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release.
- iv. High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate.
- v. Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released.
- vi. Threat of fire or explosion.
- vii. The availability of other appropriate federal or state response mechanisms to respond to the release.
- viii. Other situations or factors that may pose threats to public health or welfare or the environment.

# **Prior Response Activities**

() PRP (X) STATE () FEDERAL () OTHER
Brief Description: In May 2006, MEDEP completed the removal of more than 200 5-gallon

containers of solvents. On 23 August 2006, MEDEP subcontractors conducted air sampling in the basement of the residence.



# **EPA REGION I** REMOVAL SITE INVESTIGATION

# **Inspection Information**

Site Name: Charlotte Smith Property

Address: Route 191

Town: Meddybemps

County: Washington

State: Maine (ME)

Date of Inspection: 28 November 2006

Time of Inspection: 0800 hours (hrs) to 1745 hrs

Weather Conditions: Overcast, 42° Fahrenheit

Date of Inspection: 29 November 2006

Time of Inspection: 0800 hrs to 1315 hrs

Weather Conditions: Overcast, 38° Fahrenheit

Site Status at Time of Inspection: () ACTIVE

(X) INACTIVE

Comments:

# **Agencies/Personnel Performing Inspection**

| 2                   | Names                          | <u>Program</u>   |
|---------------------|--------------------------------|--|
| (X) EPA:            | AmyJean McKeown                | U.S. Environmental Protection Agency (EPA) Region I Emergency Planning and Response Branch (EPRB), On-Scene Coordinator (OSC). |
|                     | Scott Clifford                 | EPA Office of Environmental<br>Measurement and Evaluation<br>(OEME), Chemist.  |
| (X) EPA Contractor: | Eric Ackerman<br>Lindsay Rasel | Weston Solutions, Inc.<br>(WESTON), Superfund<br>Technical Assessment and<br>Response Team III (START).                        |
| (X) State:          | Kathy Howatt                   | Maine Department of Environmental Protection (MEDEP) Bureau of Remediation & Waste Management                                  |

| Agencies/   | Personnel Per                                     | forming Inspe                   | ction (Conc                            | luded)                            | 8,                           |
|---|---|---------------------------------|--|-----------------------------------|------------------------------|
| () Other:   | ä   |                                 | 2 9                                    | g <sup>A</sup> P                  | 를 전 2<br>1                   |
| Current Owner Based on F  | Field Interview                                   | : Dawn Smith                    | 8<br>2                                 |                                   | u-s.                         |
|   | Physical S  | lite Character                  | istics                                 | e                                 |                              |
| Parameter   |   |                                 | tities/Extent                          |                                   | 35<br>15                     |
| (X) Cylinders:  | There were no staged on the                       |                                 | missioned c                            | ompressed gas                     | cylinders                    |
| () Drums:   |   |                                 | *                                      | 9 <del>0</del>                    |                              |
| () Lagoons:<br>(X) Tanks: (X) Above:  | One 275-galle                                     | on home heating wall of the res | g oil tank wa                          | as located along                  | g the                        |
| () Below:   |   |                                 |  |                                   |                              |
| () Asbestos:  | E E   |                                 |  |                                   |                              |
| () Piles:<br>() Stained Soil:   |   |                                 |  |                                   |                              |
| () Sheens:  |   |                                 |  |                                   |                              |
| () Stressed Vegetation:   | 題   |                                 |  | CC                                |                              |
| <ul><li>() Landfill:</li><li>(X) Population in Vicinity</li></ul>   | • The site is lo                                  | cated in a rural                | residential a                          | rea.                              |                              |
| () Wells: () Drinking   |   | 70                              | ************************************** |                                   |                              |
| () Monitori   | ng:   |                                 |  | Sart                              | ***                          |
| (X) Other:  | There were s                                      | everal rusty ma                 | chines and g                           | generators on th                  | e site.                      |
|   | Physica   | l Site Observa                  | tions                                  | 9                                 |                              |
| The one-story wood-frame Route 191. There was note basement of the residence floor. The basement cont various types of hardware was | ceable debris in<br>The baseme<br>ained metal sho | n the backyard<br>nt had poured | and near th<br>-concrete wa            | e bulkhead ent<br>alls and a pour | rance to the<br>red-concrete |
| , 2   | Field Sa  | mpling and Aı                   | nalysis                                | *                                 |                              |
| Matrix/Analytical   | Field   | Instrumenta                     |  |                                   |                              |
| Parameter   | CGI/O <sub>2</sub>                                | RAD                             | PID                                    | FID                               | Other                        |
| Background Readings:  | 0.0/20.9%   | 8-9 μR/hr                       | 0.0 ppm                                | 0.0 ppm                           | -<br>-                       |

# Field Sampling and Analysis (Concluded)

| Matrix/Analytical | Fie                                   |           |          |         |       |
|-------------------|---------------------------------------|-----------|----------|---------|-------|
| Parameter         | CGI/O <sub>2</sub> _                  | RAD       | . PID    | FID     | Other |
| Air:              | 0.0/20.9%                             | 8-9 μR/hr | 0.0 ppm  | 0.0 ppm |       |
| Soil:             | 0.0/20.9%                             | 8-9 μR/hr | 0.0 ppm  | 0.0 ppm |       |
| Surface:          |                                       |           |          |         | , (*  |
| Water:            | · · · · · · · · · · · · · · · · · · · | 20        |          | )       | **    |
| Tanks:            |                                       |           |          |         |       |
| Drums:            |                                       | #0        | 12<br>12 |         | a X   |
| Vats:             |                                       |           |          |         |       |
| Lagoons:          | g(                                    |           |          |         |       |
| Spillage:         |                                       |           |          |         |       |
| Run Off:          |                                       |           |          |         |       |
| Piles:            |                                       |           |          |         |       |
| Sediments:        |                                       |           |          |         |       |
| Groundwater:      |                                       |           |          |         |       |
| Other:            | × *                                   |           | 100      | 30      |       |

# Field Quality Control Procedures

# () SOP Followed

#### (X) Deviation From SOP

Comments: START sampling activities followed the protocol outlined in the document entitled, Sampling and Analysis Plan (SAP) for the Charlotte Smith Property, Meddybemps, Washington County, Maine. Modifications included the following: WT-11 was not collected as there was no concrete to core through within the sump; SS-10 was not collected for analysis as the subslab soil type consisted of cobbles; and WT-05 was not analyzed due to the lack of methanol volume needed to conduct the analysis. In addition, OEME Chemist Clifford collected four Summa canister samples from basement sample locations SG-01, SG-02, SG-06, and SG-10, and one ambient (background) sample from an area outside the basement, for laboratory VOC analysis.

# **Description of Sampling Conducted**

On 28 November 2006, EPA OSC McKeown, START members Ackerman and Rasel, and MEDEP representative Howatt arrived at the site to conduct Preliminary Assessment/Site Investigation (PA/SI) activities. Property owner Dawn Smith arrived on site to sign the EPA Access Agreement prior to EPA conducting site activities. START member Ackerman conducted a safety and operations meeting, and on-site personnel reviewed and signed the site Health and Safety Plan (HASP). The HASP was prepared as a separate document, entitled Weston Solutions, Inc. Region I START Site Health and Safety Plan (HASP) Charlotte Smith Site, Meddybemps, Maine.

# REMOVAL PRELIMINARY ASSESSMENT

**Priority for Site Investigation** 

(X) High

() Medium

() Low

() None

Comments:

Report Generation

Originator: Affiliation: Alysha Lynch

Weston Solutions, Inc., START

TDD No.:

01-06-11-0001

Date:

16 May 2007

Telephone:

(978) 552-2115

Task No.:

0258

### **Description of Sampling Conducted (Continued)**

Bob Black from Eastern Maine Electrical arrived on site to conduct a DigSafe inspection. Mr. Black determined that the electrical power was live in the residence. START member Ackerman requested that Mr. Black disconnect the power.

START members Ackerman and Rasel established a support zone and calibrated air monitoring instruments, including a combination photoionization detector (PID)/flame ionization detector (FID), a combustible gas indicator/oxygen meter (CGI/O<sub>2</sub>), and a radiation meter (MicroR). Background levels were recorded in the HASP as follows: PID = 0 parts per million (ppm); FID = 0 ppm; lower explosive limit (LEL) = 0%; oxygen (O<sub>2</sub>) = 20.9%; and MicroR = 9 microRoentgens per hour ( $\mu$ R/hr).

START members Ackerman and Rasel donned Level C personal protective equipment (PPE), entered the basement of the residence, and conducted a reconnaissance. Air monitoring levels were not elevated at the floor level or in the breathing zone of the basement. START personnel exited the basement, reported their findings, and downgraded to Modified Level D PPE per the HASP.

START and MEDEP representative Howatt utilized portable electric generators and existing temporary lighting to illuminate the basement. START and MEDEP personnel entered the basement and established a fan/blower assembly to ventilate/circulate air in the basement. The ventilation system was exhausted through a basement window along the south side of the residence. MEDEP representative Howatt photodocumented activities for the duration of the PA/SI.

Prior to conducting the concrete, soil gas, and subsurface soil sampling activities, START member Ackerman discussed the sampling procedure with EPA Office of Environmental Management and Evaluation (OEME) New England Regional Laboratory (NERL) Chemist Scott Clifford, who had arrived on site. OEME Chemist Clifford requested that the concrete dust samples be collected in 40-milliliter (ml) pre-weighed methanol vials and that isopropanol not be used for decontamination of the non-dedicated equipment.

START members Ackerman and Rasel, and MEDEP representative Howatt entered the basement and established 11 sample locations from which concrete dust (WT), soil gas (SG), and subsurface soil (SS) samples were collected for on-site volatile organic compound (VOC) analysis by OEME Chemist Clifford. START collected concrete dust, soil gas, and subsurface soil samples from each location except for the following: WT-11 was not collected as there was no concrete to core through within the sump; and SS-10 was not collected for analysis as the subslab soil type consisted of cobbles. Furthermore, WT-05 was not analyzed due to the lack of methanol volume needed to conduct the analysis. In addition, OEME Chemist Clifford collected four Summa canister samples from basement sample locations SG-01, SG-02, SG-06, and SG-10, and one ambient (background) sample from an area outside the basement, for laboratory VOC analysis. At the completion of sampling activities, all personnel departed for the day.

# Description of Sampling Conducted (Concluded)

On 29 November 2006, START members Ackerman and Rasel arrived on site to complete PA/SI activities. Activities for the day included the backfilling of borings created on 28 November 2006 with bentonite and concrete. Ventilation of the basement continued prior to the completion of tasks in the basement. At the completion of site activities, OSC McKeown selected 10% of the samples that had been analyzed on site to be sent for confirmatory analysis at OEME NERL, located in North Chelmsford, Massachusetts.

| Nie 5  | Analyses                                    |  |  |  |  |  |  |  |  |
|--|---|--|--|--|--|--|--|--|--|
| Analytical Parameter                         | Media                                       | Laboratory   |  |  |  |  |  |  |  |
| (X) VOC                                      | (X) AIR                                     | (X) OEME NERL  |  |  |  |  |  |  |  |
| () PCB                                       | () WATER                                    | () CLP   |  |  |  |  |  |  |  |
| () PESTICIDE                                 | (X) SOIL                                    | () PRIVATE   |  |  |  |  |  |  |  |
| () METALS                                    | () SOURCE                                   | () SAS   |  |  |  |  |  |  |  |
| () CYANIDE                                   | () SEDIMENT                                 | () SOW   |  |  |  |  |  |  |  |
| () SVOC                                      | (X) CONCRETE                                | (X) FIELD - OEME   |  |  |  |  |  |  |  |
| () TOXICITY                                  |   | Mobile Laboratory  |  |  |  |  |  |  |  |
| () DIOXIN                                    | *   | es W   |  |  |  |  |  |  |  |
| () ASBESTOS                                  | 5 E   | v 2  |  |  |  |  |  |  |  |
| () OTHER                                     |   |  |  |  |  |  |  |  |  |
| Analytical resu                              | lts: See Appendix D – Analytical Re         | esult Tables   |  |  |  |  |  |  |  |
|  | Receptors                                   | e  |  |  |  |  |  |  |  |
|  | Commen                                      |  |  |  |  |  |  |  |  |
| (X) Drinking Water (X) Priva                 |   |  |  |  |  |  |  |  |  |
| ( ) Th/II                                    | approximately 20 feet southeas              | t of the residence.  |  |  |  |  |  |  |  |
| () Munic<br>() Groundwater:                  | ıpaı:                                       |  |  |  |  |  |  |  |  |
| () Unrestricted Access:                      | *** **********************************      |  |  |  |  |  |  |  |  |
| (X) Population in Proximity:                 | The site is located in a mirel res          | idential area  |  |  |  |  |  |  |  |
| (X) Sensitive Ecosystem:                     | 2000 CO | The site is located in a rural residential area.  The Dennys River abuts the site to the north and west. |  |  |  |  |  |  |  |
| () Other:                                    | The Delitys River abuts the site            | to the north and west.   |  |  |  |  |  |  |  |
| () other:                                    |   |  |  |  |  |  |  |  |  |
| Additio                                      | nal Procedures for Site Determina           | tion   |  |  |  |  |  |  |  |
| Additional Procedures for Site Determination |   |  |  |  |  |  |  |  |  |

None planned at the time.

#### **Site Determination**

Depending on further information, criteria that may be met by the site include 40 CFR 300.415 [b] [2], parts:

- i. Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances, pollutants or contaminants.
- ii. Actual or potential contamination of drinking water supplies or sensitive ecosystems.
- iii. Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release.
- iv. High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate.
- v. Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released.
- vi. Threat of fire or explosion.
- vii. The availability of other appropriate federal or state response mechanisms to respond to the release.
- viii. Other situations or factors that may pose threats to public health or welfare or the environment.

# Report Generation

Originator: Alysha Lynch

Alysna Lynch

Date:

16 May 2007

Affiliation:

Weston Solutions, Inc., (START)

Telephone:

(978) 552-2115

TDD No.:

01-06-11-0001

Task No.:

0258

II. Narrative Chronology

# Narrative Chronology

On 28 November 2006, U.S. Environmental Protection Agency (EPA) On-Scene Coordinator (OSC) AmyJean McKeown, Weston Solutions, Inc., Superfund Technical Assessment and Response Team (START) members Eric Ackerman and Lindsay Rasel, and Maine Department of Environmental Protection (MEDEP) representative Kathy Howatt arrived at the Charlotte Smith Property site (the site) to conduct Preliminary Assessment/Site Investigation (PA/SI) activities.

The site consists of an unoccupied private residence located on a flat parcel that is bounded by Main Street (Route 191) to the south, by the Dennys River to the north and west, and by Lombard Road to the east. The geographic coordinates of the site are 45° 02' 18.8" north latitude and 67° 21' 66.3" west longitude, as measured from the center of the site (see Appendix A – Figures: Figure 1 – Site Location Map). Property owner Dawn Smith arrived on site to sign the EPA Access Agreement prior to EPA conducting site activities. START member Ackerman conducted a safety and operations meeting, and on-site personnel reviewed and signed the site Health and Safety Plan (HASP). The HASP was prepared as a separate document, entitled Weston Solutions, Inc. Region I START Site Health and Safety Plan (HASP) Charlotte Smith Site, Meddybemps, Maine.

Bob Black from Eastern Maine Electric arrived on site to conduct a DigSafe inspection. Mr. Black determined that the electrical power was live from the pole to an external box on the residence. START member Ackerman requested that Mr. Black leave the power to the interior of the residence disconnected.

START members Ackerman and Rasel established a support zone and calibrated air monitoring instruments, including a combination photoionization detector (PID)/flame ionization detector (FID), a combustible gas indicator/oxygen meter (CGI/O<sub>2</sub>), and a radiation meter (MicroR). Background levels were recorded in the HASP as follows: PID = 0 parts per million (ppm); FID = 0 ppm; lower explosive limit (LEL) = 0%; oxygen (O<sub>2</sub>) = 20.9%; and MicroR = 9 microRoentgens per hour ( $\mu$ R/hr).

START members Ackerman and Rasel donned Level C personal protective equipment (PPE), entered the basement of the residence, and conducted a reconnaissance. Air monitoring levels were not elevated at the floor level or in the breathing zone of the basement. START personnel exited the basement, reported their findings, and downgraded to Modified Level D PPE per the HASP.

START and MEDEP representative Howatt utilized portable electric generators and existing temporary lighting to illuminate the basement. START and MEDEP personnel entered the basement and established a fan/blower assembly to ventilate/circulate air in the basement. The ventilation system was exhausted through a basement window along the south side of the residence. MEDEP representative Howatt photodocumented activities during the duration of the PA/SI (see Appendix B – Photodocumentation Log).

Prior to conducting the concrete, soil gas, and subsurface soil sampling activities, START member Ackerman discussed the sampling procedure with EPA Office of Environmental Management and Evaluation (OEME) New England Regional Laboratory (NERL) Chemist Scott Clifford, who had arrived on site to conduct sample analysis for volatile organic compounds (VOCs). OEME Chemist Clifford requested that the concrete dust samples be collected in 40-milliliter (ml) pre-weighed methanol vials and that isopropanol not be used for decontamination of the non-dedicated equipment.

START members Ackerman and Rasel, and MEDEP representative Howatt entered the basement and established 11 sample locations from which concrete dust (WT), soil gas (SG), and subsurface soil (SS) samples were collected for on-site VOC analysis by OEME Chemist Clifford (see Appendix A – Figures: Figure 2 – Basement Sample Location Diagram). START collected concrete dust, soil gas, and subsurface soil samples from each location except for the following: WT-11 was not collected as there was no concrete to core through within the sump; and SS-10 was not collected for analysis as the subslab soil type consisted of cobbles. Furthermore, WT-05 was not analyzed due to the lack of methanol volume needed to conduct the analysis. In addition, OEME Chemist Clifford collected four Summa canister samples from basement sample locations SG-01, SG-02, SG-06, and SG-10, and one ambient (background) sample from an area outside the basement, for laboratory VOC analysis. At the completion of sampling activities, all personnel departed for the day.

On 29 November 2006, OSC McKeown, EPA Chemist Clifford, START members Ackerman and Rasel, and MEDEP representative Howatt arrived on site to complete PA/SI activities. Activities for the day included using bentonite and concrete to backfill the borings created on 28 November 2006. Ventilation of the basement continued prior to the completion of tasks in the basement. At the completion of site activities, OSC McKeown selected 10% of the samples that had been analyzed on site to be sent for confirmatory analysis at OEME NERL located in North Chelmsford, Massachusetts (see Appendix C – Chain-of-Custody Records).

On 3 January 2007, START member Ackerman received the analytical results from OEME: The results are included in Appendix D [see Appendix D – Analytical Result Tables: Table 1 – VOC Field Screening Results Air/Soil Gas Samples; Table 2 – VOC Field Screening Result Soil/Solid Samples; Table 3 – Air/Soil Gas Analyses (TO-15); Table 4 – VOAs in Soil High Level Method].

# **Analytical Summaries**

Analytical field screening results of the 11 soil gas samples (SG-01 through SG-11) indicated the presence of three VOCs; including cis-1,2-Dichloroethylene (cis-1,2-DCE), trichloroethylene (TCE), and tetrachloroethylene (PCE) (see Appendix D – Analytical Result Tables: Table 1 – VOC Field Screening Results Air/Soil Gas Samples). Cis-1,2-DCE was detected in one sample (SG-07) at a concentration of 340 ppb/V. TCE was detected in five samples (SG-03, SG-06, SG-07, SG-08, and SG-11); at concentrations ranging from 18 to 1,940 ppb/V. PCE was detected in all 11 samples, at concentrations ranging from 42 to 642,000 ppb/V. Confirmation results from the summa canister samples collected at sample locations SG-01, SG-02, SG-06, and SG-10

indicated the presence of PCE at concentrations ranging from 83 to 10,700 ppb/V. Cis-1,2-DCE and TCE were not detected in the summa canister confirmation samples [see Appendix D – Analytical Result Tables: Table 3 – Air/Soil Gas Analyses (TO-15)].

Analytical field screening results of the 10 concrete dust samples (WT-01 through WT-10) indicated the presence of one VOC. PCE was detected in five samples (WT-03, WT-04, WT-06, WT-07, and WT-08) at concentrations ranging from 57 to 110,500 micrograms per kilogram (μg/kg) (see Appendix D – Analytical Result Tables: Table 2 – VOC Field Screening Result Soil/Solid Samples). No VOCs were detected in confirmation sample WT-02; however, PCE was detected in sample WT-07, at a concentration of 130 μg/kg (see Appendix D – Analytical Result Tables: Table 4 – VOAs in Soil High Level Method).

PCE was detected in all 10 subsurface soil samples (SS-01 through SS-09, and SS-11) screened on site, at concentrations ranging from 82 to 2,300,000  $\mu$ g/kg (see Appendix D – Analytical Result Tables: Table 4 – VOAs in Soil High Level Method). Two VOCs, bromomethane and PCE, were detected in subsurface soil confirmation samples. Bromomethane was detected in subsurface soil sample SS-05 at a concentration of 310  $\mu$ g/kg; and PCE was detected in SS-05 (77  $\mu$ g/kg), SS-07 (1,950,000  $\mu$ g/kg), and SS-11 (95  $\mu$ g/kg).



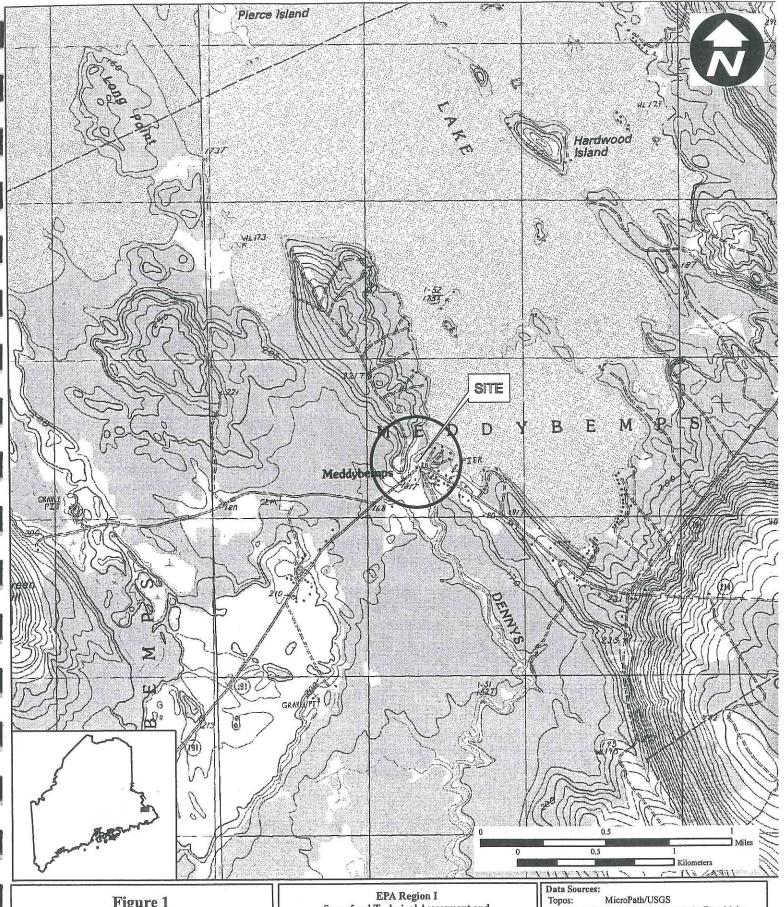


Figure 1

Site Location Map

**Charlotte Smith Property** Route 191 Meddybemps, Maine

EPA Region I Superfund Technical Assessment and Response Team (START) III Contract No. EP-W-05-042

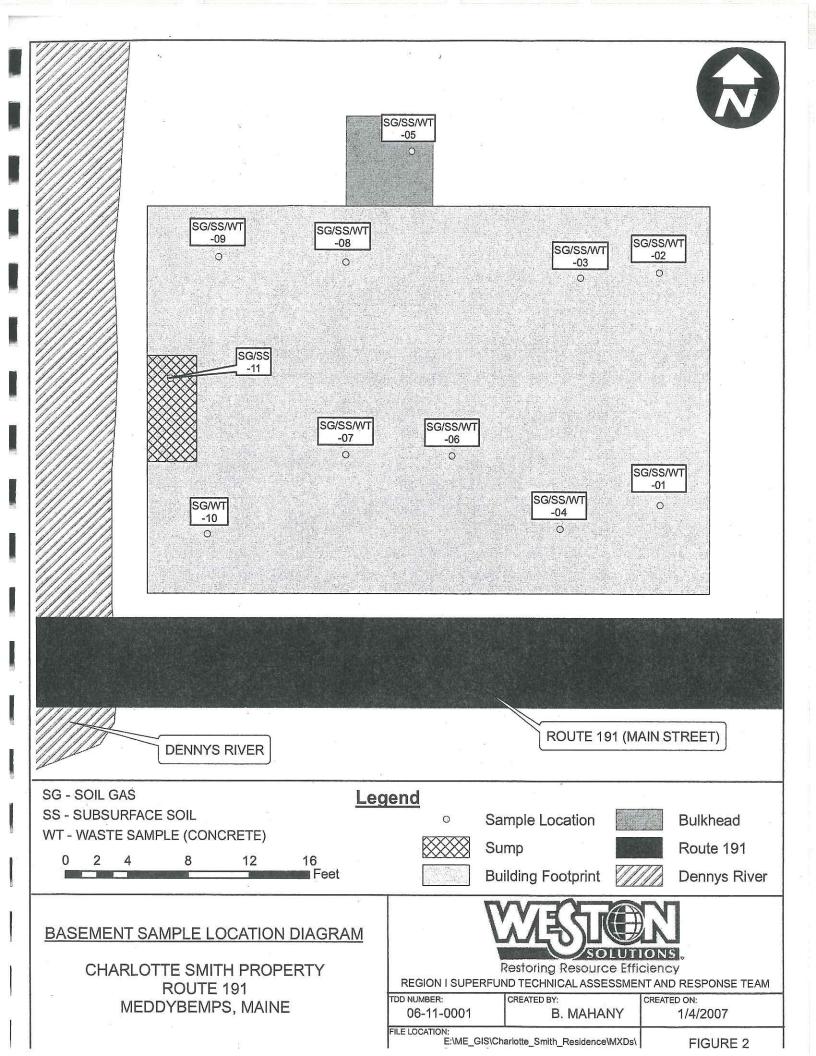
TDD Number: 06-11-0001

Created by: Aaron Benoit Created on: 7 November 2006

Modified by: Eric Ackerman Modified on: 17 May 2007

Topos: MicroPath/USGS
Quadrangle Name(s): Meddybemps Lake East, Maine
& Meddybemps Lake West, Maine
All other data: START





# Appendix D

Analytical Result Tables
Table 1 – VOC Field Screening Results Air/Soil Gas Samples
Table 2 – VOC Field Screening Result Soil/Solid Samples
Table 3 – Air/Soil Gas Analyses (TO-15)
Table 4 – VOAs in Soil High Level Method

# TABLE 1

# VOC FIELD SCREENING RESULTS AIR/SOIL GAS SAMPLES CHARLOTTE SMITH PROPERTY MEDDYBEMPS, MAINE

| X, C |                 |          |              | Tentative                | ly Identified Compo | unds                |
|------|-----------------|----------|--------------|--------------------------|---------------------|---------------------|
|      | Sample Number   | Location | Date Sampled | cis-1,2-Dichloroethylene | Trichloroethylene   | Tetrachloroethylene |
|      | Breathing Zone* | Basement | 11/28/2006   | NA.                      | NA                  | 11                  |
| C    | W1243-0001      | SG-01    | 11/28/2006   | 10 U                     | 10 U                | 1,690               |
| C    | W1243-0002      | SG-02    | 11/28/2006   | 10 U                     | 10 U                | 125                 |
|      | W1243-0003      | SG-03    | 11/28/2006   | 50 U                     | 110                 | 1,840               |
|      | W1243-0004      | SG-04    | 11/28/2006   | 50 U                     | 20 U                | 5,860               |
|      | W1243-0005      | SG-05    | 11/28/2006   | 50 U                     | 20 U                | 42                  |
| C    | W1243-0006      | SG-06    | 11/28/2006   | 50 U                     | 18                  | 9,730               |
|      | W1243-0007      | SG-07    | 11/28/2006   | 340                      | 1,940               | 642,000             |
| Г    | W1243-0008      | SG-08    | 11/28/2006   | 50 U                     | 52                  | 23,500              |
|      | W1243-0009      | SG-09    | 11/28/2006   | 50 U                     | 50 U                | 302                 |
| C    | W1243-0010      | SG-10    | 11/28/2006   | 50 U                     | 20 U                | 950                 |
|      | W1243-0011      | SG-11    | 11/28/2006   | 50 U                     | 54                  | 9,530               |

#### NOTES

Results are reported on an "as received" basis.

Results are reported in parts per billion by volume (ppb/V).

SG - Soil Gas sample.

- C Indicates that a confirmation sample was collected in Summa cannisters for these locations.
- U The compound was analyzed for, but not detected. The value is the Sample Quantitation Limit (SQL).

<sup>\*</sup> Breathing Zone Sample - The EPA Chemist confirmed that VOC levels within the breathing zone of the basement were below HASP action levels.

#### TABLE 2

# **VOC FIELD SCREENING RESULTS** SOIL/SOLID SAMPLES **CHARLOTTE SMITH PROPERTY** MEDDYBEMPS, MAINE

|        |               |          |              | Tentatively Identified Compounds |
|--------|---------------|----------|--------------|----------------------------------|
|        | Sample Number | Location | Date Sampled | Tetrachloroethylene              |
| 0      | W1243-0025    | WT-01    | 11/28/2006   | 30 U                             |
| С      | W1243-0026    | WT-02    | 11/28/2006   | 30 U                             |
|        | W1243-0027    | WT-03    | 11/28/2006   | 95                               |
|        | W1243-0028    | WT-04    | 11/28/2006   | 93                               |
|        | W1243-0029    | WT-05    | 11/28/2006   | NA                               |
|        | W1243-0030    | WT-06    | 11/28/2006   | 110,500                          |
| C      | W1243-0031    | WT-07    | 11/28/2006   | 2,640                            |
|        | W1243-0032    | WT-08    | 11/28/2006   | 57                               |
|        | W1243-0033    | WT-09    | 11/28/2006   | 30 U                             |
|        | W1243-0034    | WT-10    | 11/28/2006   | 30 U                             |
| T      | W1243-0013    | SS-01    | 11/28/2006   | 82                               |
| $\top$ | W1243-0014    | SS-02    | 11/28/2006   | 123                              |
|        | W1243-0015    | SS-03    | 11/28/2006   | 405                              |
|        | W1243-0016    | SS-04    | 11/28/2006   | 1,310                            |
| C      | W1243-0017    | SS-05    | 11/28/2006   | 94                               |
|        | W1243-0018    | SS-06    | 11/28/2006   | 5,510                            |
| С      | W1243-0019    | SS-07    | 11/28/2006   | 2,300,000                        |
|        | W1243-0020    | SS-08    | 11/28/2006   | 3,680                            |
|        | W1243-0021    | SS-09    | 11/28/2006   | 218                              |
| С      | W1243-0023    | SS-11    | 11/28/2006   | 1,240                            |

#### NOTES:

WT - Concrete Dust sample

SS - Subsurface Soil sample

Results are reported on a "Wet Weight Basis".
Results are reported in micrograms per Kilogram (µg/Kg).
C - Indicates that a confirmation sample was collected for this station.

U - The compound was analyzed for, but not detected. The value is the sample quantitation limit (SQL).

NA - Not Analyzed.

Site: Charlotte Smith Property Case: NA SDG: W1243-001 Laboratory: OEME

#### TABLE 3 Air/Soil Gas Analyses (TO-15)

|                         | 59<br>70<br>85<br>90 | Canister No.<br>Lab Sample ID<br>Scribe Number<br>Date Collected | SG-<br>AA67<br>W1243<br>11/28/ | 950<br>-0050 | SG-<br>AA67<br>W1243<br>11/28 | 7951<br>3-0051 | SG-<br>AA67<br>W1243<br>11/28 | 7952<br>3-0052 | AA6<br>W124 | -10<br>7953<br>3-0053<br>72006 | Amb<br>AA6'<br>W124;<br>11/28 | 7954<br>3-0054 |        |
|-------------------------|----------------------|--|--------------------------------|--------------|-------------------------------|----------------|-------------------------------|----------------|-------------|--------------------------------|-------------------------------|----------------|--------|
| Analyte                 |                      |  | Result                         | RL           | Result                        | RL             | Result                        | RL             | Result      | RL                             | Result                        | RL             | Method |
| 1,2,4-Trimethylbenzene  |                      |  | ND                             | 32           | ND                            | 3.5            | ND                            | 220            | ND          | 0.053                          | 0.19                          | 0.16           | TO-15  |
| 4-Ethyltoluene          |                      |  | ND                             | 30           | ND                            | 3.3            | ND                            | 210            | ND          | 0.05                           | 0.19                          | 0.15           | TO-15  |
| Acetone                 |                      |  | ND                             | 58           | ND                            | 6.4            | ND                            | 400            | ND          | 0.096                          | 2.8                           | 0.29           | TO-15  |
| Benzene                 |                      |  | ND                             | 32           | ND                            | 3.5            | ND.                           | 220            | ND          | 0.053                          | 0.69                          | 0.16           | TO-15  |
| Carbon Tetrachloride    |                      |  | ND                             | 31           | ND                            | 3.4            | ND                            | 220            | ND          | 0.052                          | 0.07                          | 0.16           | TO-15  |
| Dichlorodifluoromethane |                      |  | ND                             | 32           | ND                            | 3.5            | ND                            | 220            | ND          | 0.053                          | 0.5                           | 0.16           | TO-15  |
| Ethylbenzene            |                      |  | ND                             | 32           | ND                            | 3.5            | ND                            | 220            | ND          | 0.053                          | 0.2                           | 0.16           | TO-15  |
| Hexane                  |                      |  | ND                             | 32           | ND                            | 3.5            | ND                            | 220            | ND          | 0.053                          | 0.33                          | 0.16           | TO-15  |
| Isopropyl Alcohol       |                      |  | ND                             | 57           | 39                            | 6.3            | ND                            | 400            | ND          | 0.095                          | 110                           | 0.29           | TO-15  |
| Tetrachloroethylene     |                      |  | 1370                           | 32           | 83                            | 3.5            | 10700                         | 220            | 1460        | 0.053                          | 0.43                          | 0.16           | TO-15  |
| Toluene                 |                      |  | ND                             | 31           | ND                            | 3.4            | ND                            | 220            | ND          | 0.052                          | 1.4                           | 0.16           | TO-15  |
| Trichlorofluoromethane  |                      |  | ND                             | 31           | ND                            | 3.4            | ND                            | 220            | ND          | 0.052                          | 0.21                          | 0.16           | TO-15  |
| m/p-Xylenes             |                      |  | ND                             | 60           | ND                            | 6.6            | ND                            | 420            | ND          | 0.1                            | 0.6                           | 0.31           | TO-15  |
| o-Xvlene                |                      | *  | ND                             | 31           | ND                            | 3.4            | ND                            | 220            | ND          | 0.052                          | 0.22                          | 0.16           | TO-15  |

Results are reported in parts per billion by volume (ppb/V).
ND - Not detected
L - Estimated value is below the calibration range.
RL - Reporting Limit

SITE: CHARLOTTE SMITH PROPERTY

CASE: NA SDG: W1243-0001 LABORATORY: OEME (NERL)

# TABLE 4 VOAs in Soil High Level Method

| SAMPLE LOCATION:<br>SAMPLE NUMBER:<br>LABORATORY NUMBER:        |                    | MB-01<br>W1243-0043<br>AA67944         |   | SS-05<br>W1243-0045<br>AA67945         | SS-07<br>W1243-0046<br>AA67946             |   | SS-11<br>W1243-0047<br>AA67947         |    | WT-02<br>W1243-0048<br>AA67948         | 52 | WT-07<br>W1243-0049<br>AA67949         |    |
|---|--------------------|--|---|--|--|---|--|----|--|----|--|----|
| COMPOUND<br>Bromomethane  | Reporting Limit 50 | 50                                     | U | 310                                    | 100000                                     | U | 51                                     | 11 | 54                                     | 11 | 85                                     | 30 |
| Tetrachloroethylene   | 50                 | 50                                     | U | 77                                     | 1950000                                    | _ | 95                                     | U  | 54                                     | U  | 130                                    | U  |
| DILUTION:<br>DATE SAMPLED:<br>DATE EXTRACTED:<br>DATE ANALYZED; |                    | 50<br>11/28/06<br>11/30/06<br>11/30/06 |   | 50<br>11/28/06<br>11/30/06<br>11/30/06 | 100000<br>11/28/06<br>11/30/06<br>11/30/06 |   | 50<br>11/28/06<br>11/30/06<br>11/30/06 |    | 50<br>11/28/06<br>11/30/06<br>11/30/06 | 61 | 50<br>11/28/06<br>11/30/06<br>11/30/06 |    |
| VOA - Volatile Organic Analysis                                 |                    |  |   |  |  |   |  |    |  |    | 23.00                                  |    |

All Results are reported in micrograms per Kilogram (μ<sub>9</sub>/κ<sub>9</sub>)